

# INTERNATIONAL SEARCH REPORT

International application No.,

PCT/US04/30774

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : C07H 21/02, 21/04; C12P 19/34 US CL : 536/23.1; 435/91.2+ According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 536/23.1; 435/91.2+ Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
a	Roets, et al., 1989, Relationship between numbers of $\alpha_2$ - and $\beta_2$ -adrenoceptors in test tissue and bloodcells and milkability of primiparous cows, J. Dairy Sci, 72:3304-3313	1-7
y	Roets, et al., 1986, Relationship between milkability and adrenocetpro concentrations in test tissue in primiparous cows, J. Dairy Sci. 69:3120-3130, especially page 3120, column 2, paragraph 2	1-7
y	Yu and Merchant, Beta 2 Adrenergic Polymorphism Detection, U.S. Patent Application Publication, published Sep. 26, 2002, Publication No. US 2002/0137069 A1, paragraphs, 4, 5, 8	1-7
y	Einspanier, R et al. 1997, Genbank submission for Bos taurus mRNA for beta-2-adrenergic receptor, Genbank No. Z36037.	1-7
a	Bareille, et al., 1995, Modification of feed intake response to a $\beta_2$ -agonist by bovine somatotropin in lactating or dry dairy cows	
a	Roets, et al., 1995, Relationship between numbers of $\alpha_2$ - and $\beta_2$ -adrenoceptors on blood cells of bulls and milkability of their daughters, Journal of Dairy Research, 62:567-575	
a	Hammon, et al., 1994, Distribution and density of $\alpha$ - and $\beta$ -adrenergic receptor binding sites in the bovine mammary gland. Journal of Dairy Research, 61:47-57.	
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "B" earlier application or patent published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date obtained "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search 10 December 2004 (10.12.2004)		Date of mailing of the international search report 10 FEB 2005
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Joanne Hama, Ph.D. Telephone No. (571) 272-2911

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### C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
a	Wellner, et al. 1988, Functional b-adrenergic receptors in a human mammary cell line (HBL-100). Biochemical Pharmacology, 37:3035-3037.	
a	Jahn, et al. 1991, Involvement of the adrenergic system on the release of prolactin and lactogenesis at the end of pregnancy in the rat. Journal of Endocrinology, 1991, 129:343-350.	

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Continuation of B. **FIELDS SEARCHED** Item 3:  
EAST, PubMed; search terms: milking, milk beta-adrenergic